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Total No. of Pages : 02

Total No. of Questions : 19

M.Sc. (Chemistry) Campus (2015 to 2017) (Sem.-1)

ENVIRONMENTAL SCIENCES

Subject Code : CHL-406

M.Code : 51145

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying FIVE marks each and students have to attempt ALL questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A**Answer Briefly :**

1. Which layer is called coldest layer of atmosphere ?
2. Enumerate two types of Biogenic salts.
3. Name any two gaseous cycles.
4. What is the purpose of preliminary treatment in waste water treatment?
5. Define BOD.
6. What is Residual chloride?
7. Mention types of solid wastes.
8. Identify a common exposure pathway of lead and an associated health effect.
9. Define Cationic Detergents.
10. What is Green house effect?

SECTION-B

11. With the help of figure, show four distinct zones of atmosphere.
12. Give instrumental methods of analysis of environmental pollutants.
13. Give qualitative and quantitative estimates of pesticides.
14. *“Global warming, destruction of ozone layer and acid rain are global problems that cannot be dealt with by the mostly local regulations used for other air pollutants.”* Justify the statement.
15. Comment on the microbial decomposition of polymers.
16. Discuss in brief chemical solutions to environmental problems.

SECTION-C

17. There are two types of water quality parameters : Chemical and Biological. Discuss any three chemical and any two biological water quality parameters.
18. (a) What are hydrocarbons? Describe the source and sinks, effects and containment of hydrocarbons.

(b) What are the four basic elements which affect the efficiency of combustion as a pollution control device?
19. (a) State various sources/causes of Thermal Pollution.

(b) How liquid radioactive wastes are classified and disposed off? Which precautions are required after disposal of radio-active wastes?

NOTE : Disclosure of Identity by writing Mobile No. or making of passing request on any page of Answer sheet will lead to UMC against the Student.